

§§ 86.1736-99—86.1769-99 [Reserved]

§ 86.1770-99 All-Electric Range Test requirements.

(a) ZEVs and Type A and Type B hybrid electric vehicles shall be subject to the All-Electric Range Test specified below for the purpose of determining the energy efficiency and operating range of a ZEV or of a hybrid electric vehicle operating without the use of its auxiliary power unit. For hybrid electric vehicles, the manufacturer may elect to conduct the All-Electric Range Test prior to vehicle preconditioning in the exhaust and evaporative emission test sequence specified in subpart B of this part.

(1) *Cold soak.* The vehicle shall be stored at an ambient temperature not less than 68 °F (20 °C) and not more than 86 °F (30 °C) for 12 to 36 hours. During this time, the vehicle's battery shall be charged to a full state-of-charge.

(2) *Driving schedule*—(i) *Determination of All-Electric Range—Highway.* At the end of the cold soak period, the vehicle shall be placed, either driven or pushed, onto a dynamometer and operated through an Urban Dynamometer Driving Schedule, found in 40 CFR part 86, Appendix I, until the vehicle is no longer able to maintain within 5 miles per hour of the speed requirements or within 2 seconds of the time requirements of the driving schedule. For hybrid electric vehicles, this determination shall be performed without the use of the auxiliary power unit.

(ii) *Determination of All-Electric Range—Urban.* At the end of the cold soak period, the vehicle shall be placed, either driven or pushed, onto a dynamometer and operated through a Highway Fuel Economy Driving Schedule, found in 40 CFR part 600, Appendix I, until the vehicle is no longer able to maintain within 5 miles per hour of the speed requirements or within 2 seconds of the time requirements of the driving schedule. For hybrid electric vehicles, this determination shall be performed without the use of the auxiliary power unit.

(3) *Recording requirements.* Once the vehicle is no longer able to maintain the speed and time requirements specified in paragraph (a)(2) of this section,

or once the auxiliary power unit turns on, in the case of a hybrid electric vehicle, the accumulated mileage and energy usage of the vehicle from the point where electricity is introduced from the electrical outlet shall be recorded, and the vehicle shall be brought to an immediate stop, thereby concluding the All-Electric Range Test.

(4) *Regenerative braking.* Regenerative braking systems may be utilized during the range test. The braking level, if adjustable, shall be set according to the manufacturer's specifications prior to the commencement of the test. The driving schedule speed and time tolerances specified in paragraph (a)(2) of this section shall not be exceeded due to the operation of the regenerative braking system.

(b) [Reserved]

[62 FR 31242, June 6, 1997. Redesignated and amended at 63 FR 987, Jan. 7, 1998]

§ 86.1771-99 Fuel specifications.

(a) The provisions of § 86.113 apply to this subpart, with the following exceptions and additions.

(1) For light-duty vehicles and light light-duty trucks, gasoline having the specifications listed below may be used in exhaust emission testing as an option to the specifications in § 86.113(a)(1). If a manufacturer elects to utilize this option, exhaust emission testing shall be conducted by the manufacturer with gasoline having the specifications listed in the table in this paragraph (a)(1), and the Administrator shall conduct exhaust emission testing with gasoline having the specifications listed in the table in this paragraph (a)(1). Specifications for non-gasoline fuels and all fuel property test methods are contained in Chapter 4 of the California Regulatory Requirements Applicable to the National Low Emission Vehicle Program (October, 1996). These requirements are incorporated by reference (see § 86.1). The table follows:

| Fuel property | Limit |
|---|----------|
| Octane, (R+M)/2 (min) | 91. |
| Sensitivity (min) | 7.5. |
| Lead, g/gal (max) (No lead added) | 0-0.01 |
| Distillation Range, °F | |
| 10 pct. point, | 130-150. |
| 50 pct. point, | 200-210. |